

## **REMARKS**

Claims 1-35 are pending. Claims 1-32 were rejected. Claims 1, 2, 7, 9 to 12, 14, 25, 28 and 32 are currently amended. Claims 33 to 35 have been added. The title was objected to and amended according to Examiner's suggestion. Applicants request reconsideration and allowance for the following reasons.

### **Objection to the Specification:**

The specification was objected to because "[t]he title of the invention is not descriptive." The Office Action ("Action") required the inclusion of some mention of "backward compatibility." An amendment to the title reflecting this requirement is found above, and Applicant respectfully requests the objection to the title be withdrawn.

### **35 U.S.C. § 112 (indefinite) rejection:**

Claims 1 and 25 were rejected as indefinite, stating that it is unclear what "assembling" entails, and what a "snapshot" contains. Although these claims have been amended, Applicant has retained use of the term "snapshot" because the claim is definite. Applicant, therefore, requests reconsideration and withdrawal of the rejection.

The concept of a "snapshot" is well known in computer fields. Typically, it describes the state of some component within a computer system at a specific point in time. Here, claims 1 and 25 refer to snapshots of an interface. The specification, at paragraphs 20-24, provides ample description of these snapshots and the uses for them. This claim terminology would be well understood by one of skill in the art and, therefore, the indefiniteness rejection should be withdrawn.

Claims 1, 7, and 28 were rejected as indefinite for claiming the feature of "rating each detected difference according to a backward compatibility metric." Again, this terminology would be well understood by one of skill in the art. In mathematics, the term *metric* refers to a function that describes the distances between pairs of points in a space. The rejected claims indicate that such a function is to be applied to backward compatibility measurements based on ratings of detected differences between the snapshots. This language is clear. Accordingly, the indefiniteness rejections to claims 1, 7 and 28 should be withdrawn.

Claims 1, 7, 25, and 28 were rejected as indefinite for claiming the feature of “determining an overall backward compatibility ... based on the difference ratings.” The “difference ratings” are not indefinite for the reasons stated above. “[D]etermining an overall backward compatibility” would be well understood by one of skill in the art. The term “overall” would be understood to refer to the backward compatibility of the snapshot as a whole, instead of each detected difference, as discussed above. The term “backward compatibility” is well understood in the art, and generally relates to determining if something is interchangeable with an older version of that same thing. Accordingly, the indefiniteness rejections to claims 1, 7, 25 and 28 should be withdrawn.

Claims 1, 7, 25, and 28 were rejected as indefinite for claiming the feature of “issuing an alert containing the overall backward compatibility.” The Action states, “[t]his limitation is not clearly understood because it is not clear why the alert is issued. . .” The term “overall backward compatibility” is definite for the reasons stated above. One skilled in the art would understand what is meant by “issuing an alert.” The Action asks “why” and “when an alert is issued. The why and when may represent example embodiments, but are not necessary for one skilled in the art to understand what is meant by “issue an alert” where that alert contains the “overall backward compatibility” discussed previously.

All other claim rejections based on indefinite language are essentially the same as those discussed above and those rejections should be withdrawn for at least the same reasons.

### **35 U.S.C. § 103 rejection of Claims 1, and 2 to 6:**

Claim 1 was rejected as obvious in view of U.S. Patent No. 6,986,132 B1 (“Schwab”) and in further view of U.S. Patent No. 7,069,474 B2 (“Atallah”). Claim 1 has been amended to refer to a software update monitoring method for a multi-author design environment including “issuing an alert message to registered authors of the software design environment.” None of the cited art teaches or suggests this subject matter. Schwab’s disclosure refers only to comparing programs by their APIs and to indicating a verification error if incompatible. Schwab col. 13, line 66 to col. 14, line 11. In Schwab’s system, “program modules are optionally verified by a card manufacturer, a card issuer and an applet or library provider.” Schwab col. 26, lines 22-23. Schwab has no disclosure corresponding to alert messages that are sent to registered authors of the software design environment.

Additionally, neither Schwab nor Atallah teaches “rating each detected difference [between snapshots] according to a backward compatibility metric.” The Office Action asserts that the rating of each binary file in Atallah corresponds to this element. Applicants respectfully disagree. Atallah states only that the:

risk assessment system 210 examines the output of the appcert application to determine whether the binary file invokes any unsupported symbols[, or] ... invokes any libraries that have a known problem[ or behavioral change, or] ... performs any static links to unchanged system libraries ... [and] then a record is generated indicating that the binary file has failed the binary compatibility test[, or] presents a high [or low] risk of failing the binary compatibility test... The process ... may be repeated for each binary file received in the input file to generate a series of records indicating the likelihood that each binary file ... will suffer a binary compatibility failure with the ABI it was tested against.

Atallah, col. 6, line 55 to col. 7, line 9. In Atallah’s system, the compatibility of a binary file is given a rating. Only one rating is given, and the rating is only an overall rating for the binary. For example, Atallah’s program will “determine whether the binary file invokes any unsupported symbols.” See Atallah col. 6, line 21 to 22. Whether the binary invokes one unsupported symbol or a million unsupported symbols, the binary is only given one rating of “failed.” This does not teach or suggest “rating each detected difference.” Rating each detected difference is a non-obvious feature of a non-obvious “method for monitoring updates to software interfaces in a multi-author software design environment.”

Claims 2 to 6 ultimately depend from claim 1 and are allowable for at least the same reasons.

### **35 U.S.C. § 103 rejection of Claims 7 and 8 to 11:**

Claim 7 was rejected as obvious in view of Schwab and in further view of Atallah. Claim 7 was rejected for reasons essentially similar to previously discussed claims. Claim 7, however, recites “rating each detected difference” and “issuing an alert message . . . to registered authors of the software design environment”; and for at least the reasons discussed above, is allowable over the cited art. Claims 8 to 11 depend from claim 7 and are allowable for at least the same reasons.

Additionally, Claim 8 claims “alert messages [which] include[] a summary of each detected difference.” Atallah states only:

The process ... may be repeated for each binary file received in the input file to generate a series of records indicating the likelihood that each binary file ... will suffer a binary compatibility failure with the ABI it was tested against... It will be appreciated that the binary file may be tested against multiple ABIs. This information may be formatted as a report and transmitted to the end user.

Atallah, col. 7, lines 5-16. A report of the rated compatibility of each tested ABI does not teach a report of the rated compatibility of every element of a snapshot that had a detected difference. For the additional reason that Atallah fails to teach or suggest the “each detected difference” error report, claim 8 is allowable.

### **35 U.S.C. § 102(e) rejection of Claims 12 and 13:**

Claims 12 and 13 were rejected as being anticipated by Schwab. Claim 12, as amended, is allowable for similar reasons as those above. Schwab does not teach “issuing an alert to registered authors of the software design environment.” Schwab discloses only comparing programs by their APIs and if incompatible “a verification error is indicated,” but not “issuing an alert to *registered authors*. . .” For at least this reasons claims 12 and 13 are allowable.

### **35 U.S.C. § 103 rejection of Claims 14, and 15 to 24:**

Claim 14 was rejected over Schwab. Claim 14 recites several elements that distinguish Schwab, including:

*rating each detected difference* according to a backward compatibility metric; and  
*issuing an alert to registered authors of the software design environment* when at least one of the detected differences indicates the first software interface is not backward compatible with respect to the second software interface.

Schwab does not teach or suggest this subject matter.

As discussed in prior claims, Schwab does not teach or suggest “rating each detected difference.” Schwab teaches in col. 25, line 2, “verification using API definition files of backward compatible revisions. . .” However, Schwab makes no mention of “rating each detected difference,” only of verifying compatibility of two files. As mentioned earlier, Schwab may indicate the result of the verification, but does not teach “issuing an alert to **registered authors** of the software design environment.” For at least these reasons Claim 14 is allowable.

Claims 15 to 24 ultimately depend from claim 14 and should be allowable for at least the reasons given above.

Additionally, regarding the specific rejection to claim 16, the Action cites Atallah as teaching that “[a]fter the end user has registered, one or more of the utilities that constitute the risk assessment system may be made available for downloading (step 320) to the subscriber over the internet...” (Atallah, col. 5, lines 40-52). Registering with a website to download the assessment tool does not teach or suggest “assigning a user to [a] snapshot” and “issuing the alert message to the user.” Atallah states that the “information may be formatted as a report and transmitted to the end user over a suitable communication link...” (Atallah, col. 7, lines 11-13). However, this does not teach or suggest “assigning a user to the first snapshot,” and for this additional reason claim 16 is allowable.

**35 U.S.C. § 103 rejection of Claims 25 to 32:**

Claims 25, 28 and 32 were rejected for similar reasons as previously discussed claims. All three claims claim issuing and alert to registered authors of the software design environment, and are allowable for at least the reasons discussed above regarding that feature. Additionally, claims 28 and 32 claim rating each detected difference and are allowable for at least the reasons discussed above regarding that feature. Since claims 26 and 27 depend on claim 25, and since claims 29 to 31 depend on claim 28 they are allowable for at least the reasons mentioned above.

### **CONCLUSION**

In view of all of the above, it is believed that any objections and rejections have been obviated, and that claims 1 to 35 are allowable. It is therefore respectfully requested that the objection and rejection be withdrawn, and that the present application issue as early as possible.

If for any reason the Examiner believes that contact with Applicant's attorney would advance the prosecution of this application, he or she is invited to contact the undersigned at the number given below.

Respectfully submitted,

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